



Zebra® ZD500R™ UHF RFID Printer



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Advanced features in a compact, easy-to-use device

The ZD500R extends Zebra's broad range of RFID printers by adding UHF RFID printing and encoding to Zebra's line of industry-leading thermal desktop printers. Designed for applications where space is at a premium, the compact ZD500R offers simple, one-touch printing and encoding, straightforward loading, and automatic RFID calibration, making it ideal for applications where technical support staff is not available, such as retail in-store exception tagging.

The printer supports both direct thermal and thermal transfer printing and is compatible with inlays from all leading suppliers. The ZD500R can be used with a variety of RFID labels and tags from small, item-level hang tags to large case and pallet labels. By encoding RFID inlays that are spaced closer together, the ZD500R enables lower media costs, less media waste and fewer roll changes.

The printer can handle the most demanding applications with

standard features that include Parallel, Serial, USB and Ethernet connectivity; large memory; and Zebra programming language. Options include cutter and peeler, Bluetooth® and Wi-Fi®-certified communications, and high-resolution printing.

The ZD500R leverages Zebra's new Link-OS™ environment — Zebra's innovative software platform with powerful applications that enhance the capabilities of the printer, making it significantly easier to integrate into global operations and manage from any location.

Featuring the Link-OS Cloud Connect application, the ZD500R can connect to the Cloud directly and securely, forwarding data from any port.

The Link-OS Print Touch™ app allows users to pair the ZD500R to NFC-enabled devices with a simple tap, giving them immediate access to the data they need, including Zebra how-to videos and product support.

Ideal for These Applications

- **Retail**
 - Item-level exception tagging
 - In-store tagging of returned goods and display
 - Promotional and other items
- **Healthcare**
 - Specimen tracking
 - Patient identification
 - Asset tracking
- **Manufacturing**
 - WIP
 - Case/ pallet tracking
 - Parts tagging
 - Asset tracking
- **Government/ DOD Compliance**
 - Document tracking
 - MIL STD 129 compliance
 - Evidence tracking
- **Hospitality & Leisure**
 - RFID wristbands
 - Ticketing
 - Mustering
 - Queue management

SPECIFICATIONS AT A GLANCE*

Printer Name

ZD500R

RFID Features

- Supports tags compatible with UHF EPC Gen 2 V1.2/ISO 18000-6C
- Prints and encodes tags with a minimum pitch of 0.6"/16mm
- Adaptive Encoding Technology simplifies RFID setup and eliminates complex RFID placement guidelines
- RFID job monitoring tools track RFID performance
- RFID ZPL® commands provide compatibility with existing Zebra RFID printers
- Support for industry standard multi-vendor chip-based serialization (MCS)
- Supports block permalocking of user memory compatible with ATA Spec 2000
- Integrated ThingMagic® RFID Reader/Encoder

Printer Features

- Thermal transfer or Direct Thermal print methods
- ZPL programming language
- Dual-wall frame construction
- Tool-less printhead and platen replacement
- OpenACCESS™ for easy media loading
- Quick and easy ribbon loading
- Simplified calibration of media
- Quad connectivity: USB, Parallel, Serial, and Ethernet
- Real time clock
- LCD User Interface
- Energy Star® qualified
- Link-OS-enabled
- Print Touch app
- 3" Media core adapter

Printer Specifications

Resolution

- 203dpi/8 dots per mm
- 300dpi/12 dots per mm (optional)

Memory

- 128MB Std SDRAM memory (4MB available to user)
- 256MB Std Flash memory (56MB available to user)

Maximum Print Width

4.09"/104mm

Maximum Print Length

39"/990mm

Maximum Print Speed

- 6"/152mm per second (203dpi)
- 4"/102mm per second (300dpi)

Media Sensors

Multi-position gap and moveable black-line media sensors

Media Characteristics

Label and Liner Length

- Maximum non-continuous: 39"/990mm
- Minimum using tear off mode: 0.25"/6.35mm
- Minimum with label present sensor used: 0.5"/12.7mm
- Minimum with cutter: 1"/25.4mm

Label and Liner Width

0.75"/19mm ~ 4.25"/108mm

Media Roll Size

- Maximum outside diameter: 5"/127mm
- Core inner diameter: 0.5"/12.7mm, 1"/25mm, 1.375"/35mm, 1.5"/37.1mm, 3"/76mm

Media Thickness

0.003"/0.08mm ~ 0.012"/0.305mm

Media Types

Roll-fed or Fan-fold, die-cut or continuous direct thermal labels with or without black line, tag stock, continuous receipt paper, wristbands

Ribbon Characteristics

- Maximum outer diameter: 1.36"/35mm
- Standard length: 244"/74m
- Ratio: 1:1 media to roll to ribbon
- Width: 1.33"/33.8mm to 4.3"/109.2mm
- Core inner diameter: 0.5"/12.7mm

Operating Characteristics


Environmental

- Operating temperature: 40°F/4.4°C ~ 105°F/41°C
- Storage temperature: -40°F/-40°C ~ 140°F/60°C
- Operating humidity: 10% ~ 90% non-condensing R.H
- Storage humidity: 5% ~ 95% non-condensing R.H

Electrical

- Auto-detectable (PFC Compliant)
- 100-240VAC, 50-60Hz

Agency Approvals

- Emissions: FCC Part 15, Subpart B, VCCI, C-Tick
- Emissions and Susceptibility: (CE): EN55022
- Class-B, EN61000-3-2, EN61000-3-0 and EN55024, CCC, CCX, Wi-Fi-certified 
- Safety: IEC 60950-1:2005 + A1:2009, EN 60950-1:2006 + A11:2009 + A12:2011 + A1:2010 + AC:2011, UL 60950-1:2007 R12.11, CAN/CSA-C22.2 No. 60950-1-07 + A1:2011 and TUV NRTL

Physical Characteristics

Width : 7.6"/193mm
Height : 7.5"/191mm
Depth : 10"/254mm
Weight : 4.9 lbs/ 2.2kg

Link-OS Solutions

Software Tools

- Printer Integration: Zebra offers apps and products designed to help you integrate Zebra devices into your existing systems
- Printer Management: Manage your print operations locally and globally with Zebra's suite of device management tools
- Developer Tools: Provides you with the tools you need to create your own apps, including documentation, source code, programming languages, templates and more

Firmware

- ZPL II®
- Web View
- Alert
- ZBI™

Communication and Interface Capabilities

- RS-232 auto-sensing Serial interface, DB-9 (standard)
- USB V2.0, bi-directional (standard)
- Centronics® Parallel (standard)
- Ethernet: 10/100 internal (standard)
- Wireless: 802.11 a/b/g/n and Bluetooth v3.0 (optional)

Fonts/ Graphics/ Symbologies

Fonts and Character Sets

- 16 resident expandable ZPL II bitmap fonts
- Two resident scalable ZPL fonts
- Native open type font support
- Unicode® Standard compliant for multi-language, on-demand thermal printing

Graphic Features

- Supports user-defined fonts and graphics — including custom logos
- ZPL II drawing commands — for boxes & lines

Barcode Symbologies

- Barcode Ratios: 2:1 (non-rotated) and 3:1
- Linear Bar Codes: Code 11, Code 39, Code 93, Code 128, UPC-A, UPC-E, EAN-8, EAN-13, EAN-14, UPC-A and UPC-E with EAN 2 or 5 digit extensions, Plessey, POSTNET, Standard 2 of 5, Industrial 2 of 5, Interleaved 2 of 5, LOGMARS, MSI, Codabar, and GS1 DataBar (formerly RSS)
- 2-Dimensional: PDF417, MicroPDF-417, Code 49, Maxicode, Codablock, Data Matrix, QR code, Aztec

Options and Accessories

- 300dpi print resolution printing for fine detail and crisp images
- Wireless: 802.11 a/b/g/n and Bluetooth v3.0
- Dispenser: label peel and present with present sensor
- Cutter for various media types
- ZKDU and KDU Plus™ keyboard display units for stand-alone printing solutions



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*Specifications subject to change.

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